

Amendments to the Specification:

Please amend the specification as follows:

Please replace the paragraph at page 14, beginning at line 10 with the following rewritten paragraph:

In such a configuration, the comparator 15a compares the image signal of R with the image signal of G. Then, when a difference between them is greater than a threshold value S1, 1 is output, and otherwise, 0 is output at 20a. The comparator 15b compares the image signal of G with a threshold value S2. Then, when the image signal of G is greater than the threshold value S2, 1 is output, and otherwise, 0 is output at 20b. The comparator 15c compares the image signal of G with the image signal of B. Then, when the difference between them is greater than a threshold value S3, 1 is output, and otherwise, 0 is output at 20c.

Please replace the paragraph at page 14, beginning at line 22 with the following rewritten paragraph:

The average operator 16a calculates an average value between the image signal of R and the image signal of G. The average operator 16b calculates an average value between the image signal of G and the image signal of B. Then, the selector 17 selects any one of the output signals from the average operators 16a and 16b and the image signal of G. In this manner, the selector 18 outputs, at 19, the output signal from the selector 17 and the image signals of RGB by switching them on the basis of the mode signal from the controlling section 5.

Please replace the paragraph at page 19, beginning at line 6 with the following rewritten paragraph:

More minutely, in the scanner 31, the output from the CCD(K) ~~44a~~ 40a is connected to an output port 44a via delay memories 41a, 42a, and 43. An output from a CCD(R) 40b is connected to an output port 44b via delay memories 41b and 42b. An output from a CCD(G)

40c is connected to an output port 44c via a delay memory 41c. Then, an output from a CCD(B) 40d is connected to an output port 44d.

Please replace the paragraph at page 20, beginning at line 14 with the following rewritten paragraph:

In this manner, the selector 54 switches the image signal from the selector 53 and the image signals of RGB on the basis of the mode signal from the controlling section 5 and outputs them as image signals at 55.

Please replace the paragraph at page 22, beginning at line 3 with the following rewritten paragraph:

As shown in FIG. 12A, an original document being an object has a red area and an area with a black line in a part thereof. The image signals acquired as a result of picking up the original document by the respective CCD(R) 40b, CCD(G) ~~40d~~ 40c, and CCD(B) ~~40a~~ 40d of RGB and CCD(K) 40a of K are shown in FIGS. 12B to 12E. As shown in FIG. 12F, when only the image signal of K is used, the output corresponding to the red area of the original document becomes low so that it is inadequate. When the present invention is applied, the output corresponding to the red area of the original document becomes high.

Please replace the paragraph at page 23, beginning at line 8 with the following rewritten paragraph:

The scanner 61 is different from the scanner 31 in that a main scanning resolution of the color signal is 1/2 of that of the monochrome signal, and it has signal converting sections 72a to 72d for converting a bit number from 10 bits to 8 bits. Concerning the scanner 61, the resolution for color is half of the resolution for monochrome. Therefore, if the resolution for monochrome is the same as that of the scanner 31, half of the capacities of the delay memories 41a to 41c, 42a, 42b and 43 in FIG. 8 are sufficient as capacities of delay memories 73a to 73c, 74a, 74b, and 75. Afterward, the delayed signals are output to output ports 76a to 76d, respectively, as shown in FIG. 14. As shown in FIG. 15A and 15B, the signal converting sections 72a to 72d execute logarithmic conversion concerning the image signals of RGB

from CCDs 71b to 71d and execute conversion of only the bit number concerning the monochrome image signal from a CCD (K) 71a, and they output the signals. The logarithmic conversion is executed concerning the image signals of RGB since a resolution performance thereof in a high-density area is important. The conversion from 8 bits into 8 bits is executed since gradation is formed from a nonexisting signal like the characteristic in FIG. 15B so that there is a possibility that a gradation skip and the like is generated.

Please replace the paragraph at page 25, beginning at line 2 with the following rewritten paragraph:

Then, if the counted-up value (pixels with large differences among the color signals that are determined to be color) is a threshold value S9 or more over the entire image, the original document is determined as color original document as a result of color/ monochrome determination and 1 is output by comparator 89 at 85. When the counted-up value is below the threshold value S9, the original document is distinguished to be a monochrome original document and 0 is output by comparator 89 at 85.

Please replace the paragraph at page 28, beginning at line 24 with the following rewritten paragraph:

In the luminance converting section 110a in FIG. 20, an average value in 2-pixel unit and an absolute value of the difference between 2 pixels are calculated by using an average operator 120 and a difference section 125 after matching the monochrome image signal with the high resolution with the resolution of the color image signal at D-FF 113. Then, the difference value is compared with a threshold value S10 at a comparator 121. As a result of the comparison, when the difference value is below the threshold value S10, 1 is output regarding the area to be flat, and otherwise, 0 is output to AND gate 132.

Please replace the paragraph at page 29, beginning at line 17 with the following rewritten paragraph:

The average value of the monochrome signals is compared with the average value of the color signals, determined using the average operator 122, in the comparator ~~122~~ 124, and

when the color average > monochrome average, 1 is output regarding the color is the color whose sensitivity is lowered at the sensor for monochrome, and otherwise, 0 is output at AND gate 132. A difference value of the average value of the color signals is determined by a difference section 123.

Please replace the paragraph at page 29, beginning at line 23 with the following rewritten paragraph:

Then, concerning logical operation by adders 126 and 127, selectors 128 and 129, a D-FF 130, and a selector 131, when the pixel is in the flat area and in an area in which the sensitivity is lowered at the sensor for monochrome such as the red or blue area, the result of the following operation expression is output as the luminance signal from the selector 131 at 134 regarding it to be 1, and otherwise, the monochrome signal is output as it is as the luminance signal from the selector 131 regarding it to be 0.

Please replace the paragraph at page 31, beginning at line 11 with the following rewritten paragraph:

In this invention, as shown in FIG. 21J, the difference between the RGB average and the K average to which (K1, K2) is added is adopted as the pixel corresponding to the read red area of the original document, and (K1, K2) is adopted as the pixel corresponding to the area with the black line.

Please replace the paragraph at page 32, beginning at line 9 with the following rewritten paragraph:

Moreover, although the memory cost at compression is reduced in the embodiments above, a similar effect can be acquired if the color signal is used with the low resolution and the monochrome signal is used with the high resolution even after decoding. That is, as shown in FIG. 22, the known JPEG decoding process is executed on an input signal 200 via a decoding section 201 by using Huffman sections 202a to 202c, inverse quantization sections 203a to 203c, IDCTs 204a to 204c, and block raster converting sections 205a to 205c. Concerning the luminance signal, the monochrome signal is output as it is at a luminance

converting section 207. Then, by using the luminance resulting from 2-pixel averaging at the average operator ~~200~~ 206, the conversion from the color difference signal into the image signals of RGB is executed according to the formula relating to the conversion from the YIQ into RGB above at 208, and the signal is output.